

In the Claims

- 1 1. [Currently Amended] A laser scanning apparatus comprising:
2 a light source configured to generate a single light beam;
3 a scanning device optically coupled with the light source and configured
4 to scan the light beam along a photoconductor in a plurality of scan lines; and
5 a start-of-scan detector assembly configured to sample the single light
6 beam and initiate a start-of-scan operation of one of the scan lines of
7 information to be written on the photoconductor, and wherein only the sampled
8 single light beam is used to control a drive level of the light source.
- 1 2. [Original] The apparatus of claim 1, further comprising:
2 a control system configured to receive a signal from the detector
3 assembly and to control the drive level of the light source based on the signal.
- 1 3. [Currently Amended] The apparatus of claim 2, wherein the control
2 system comprises processing circuitry configured to compare an indication of
3 the sampled single light beam from the signal with a predetermined value.
- 1 4. [Original] The apparatus of claim 2, wherein the control system is
2 configured to maintain the drive level of the light source at a predetermined drive
3 level during scanning of the one scan line.
- 1 5. [Original] The apparatus of claim 1, wherein the light source
2 comprises a vertical cavity surface emitting laser diode (VCSEL).
- 1 6. [Original] The apparatus of claim 1, wherein the light beam is sampled
2 only once per scan line of information written on the photoconductor, and the
3 light beam is sampled prior to writing the scan line of information on the
4 photoconductor.

1 7. [Original] The apparatus of claim 1, wherein the scanning device
2 comprises a rotating polygon mirror.

1 8. [Original] The apparatus of claim 1, wherein the start-of-scan detector
2 assembly is disposed outside of a scan area of the photoconductor.

1 9. [Previously Presented] A laser scanning apparatus comprising:
2 a rotating scanning device configured to scan a light beam from a light
3 source;
4 a photodetector optically coupled with the rotating scanning device and
5 configured to sample the light beam from the rotating scanning device;
6 a control system configured to receive an indication of the sampled light
7 beam from the photodetector and to control a drive level of the light source
8 responsive to the indication of the sampled light; and
9 wherein the control system is configured to maintain the light source at a
10 constant drive level during scanning of a single line of information on the
11 photoconductor.

1 10. [Original] The apparatus of claim 9, wherein the light source is
2 configured to emit light in a single direction.

1 11. [Original] The apparatus of claim 9, wherein the light source
2 comprises a vertical cavity surface emission laser diode (VCSEL).

1 12. [Original] The apparatus of claim 9, wherein the control system
2 comprises processing circuitry configured to compare an indication of the
3 sampled light beam with a predetermined drive level value, and to control the
4 drive level of the light source based on the comparison.

1 13. [Canceled]

1 14. [Currently Amended] A laser scanning apparatus comprising:
2 a laser configured to generate a single light beam;
3 a scanning device configured to scan the light beam from the laser;
4 a photodetector optically coupled with the scanning device and
5 configured to sample the light beam only once per line of information scanned
6 onto a photoconductor; and
7 a control system configured to receive an indication of the sampled single
8 light beam from the photodetector and to maintain a drive level of the laser at a
9 constant drive level during scanning of the line of information onto the
10 photoconductor using the indication of the sampled single light beam.

1 15. [Previously Presented] The apparatus of claim 14, wherein the laser
2 is configured to emit a light beam in a single direction.

1 16. [Previously Presented] The apparatus of claim 14, wherein the
2 photodetector is utilized to initiate a start of scan operation of the line of
3 information.

1 17. [Original] The apparatus of claim 14, wherein the sampled light
2 beam is obtained before scanning a line of information onto the photoconductor.

1 18. [Currently Amended] A laser scanning apparatus comprising:
2 means for generating a single light beam;
3 means for scanning the light beam onto a photoconductor;
4 means for sampling the single light beam which causes information to be
5 scanned onto the photoconductor; and
6 means for receiving an indication of the sampled single light beam from
7 the means for sampling and for maintaining the means for generating at a
8 constant drive level using the indication of the sampled single light beam and
9 during scanning of the line of information onto the photoconductor.

1 19. [Previously Presented] The apparatus of claim 18, wherein the
2 means for generating comprises a laser.

1 20. [Original] The apparatus of claim 18, wherein the light beam is
2 sampled before writing a scan line of information onto the photoconductor.

1 21. [Original] The apparatus of claim 18, wherein the means for sampling
2 is disposed outside of a scan area of the photoconductor.

1 22. [Currently Amended] A laser scanning method comprising:
2 generating a single light beam using a light source;
3 providing a rotating scanning device and a photoconductor;
4 scanning the light beam along the photoconductor using the rotating
5 scanning device;
6 sampling only the single light beam from the rotating scanning device
7 using a sampling assembly; and
8 controlling the light source only using the ~~sampled light beam~~ sampling of
9 only the single light beam.

1 23. [Original] The method of claim 22, further comprising:
2 initiating writing of a scan line of information onto the photoconductor
3 using the sampling assembly.

1 24. [Previously Presented] The method of claim 22, wherein the
2 controlling comprises:
3 receiving the sampled light beam in a control system;
4 comparing an indication of the sampled light beam with a predetermined
5 drive level value; and
6 wherein the controlling comprises controlling a drive level of the light
7 source responsive to the comparison.

1 25. [Original] The method of claim 22, further comprising:
2 maintaining an output power of the light source at a constant level during
3 writing of a single scan line of information onto the photoconductor.

1 26. [Original] The method of claim 22, wherein the light source
2 comprises a vertical cavity surface emitting laser diode (VCSEL).

1 27. [Original] The method of claim 22, wherein the sampling is
2 performed only once per scan line of information written on the photoconductor
3 and prior to writing the scan line of information on the photoconductor.

1 28. [Original] The method of claim 22, wherein the sampling assembly is
2 located outside of a scan area of the photoconductor.

1 29. [Currently Amended] A hard imaging device comprising:
2 a photoconductor;
3 a laser scanning apparatus configured to write scan lines of information
4 onto the photoconductor, the laser scanning apparatus comprising:
5 a laser configured to generate a single light beam;
6 a scanning device optically coupled with the laser and configured
7 to scan the light beam along the photoconductor to form the scan lines;
8 a sampling assembly configured to sample the light beam and to
9 generate a signal indicative of the sampling of the single light beam; and
10 a control system configured to control an intensity of the light
11 beam generated by the laser responsive to the sampled signal indicative of the
12 sampling of the single light beam; and
13 an image engine configured to form hard images from the written scan
14 lines using media.

1 30. [Currently Amended] The device of claim 29, wherein the control
2 system is configured to receive [[a]] the signal from the sampling assembly
3 corresponding to indicative of only the sampling of only the single sampled light
4 beam and to control a drive level of the light source based entirely on the
5 received signal.

1 31. [Currently Amended] An article of manufacture comprising:
2 processor-usable media comprising programming configured to cause
3 processing circuitry to:

4 output a control signal to control a light source configured to
5 generate a single light beam used to scan a plurality of scan lines of information
6 onto a photoconductor;

7 access an output of a start-of-scan detector assembly generated
8 ~~responsive to detection of which is indicative of only the single~~ light beam
9 thereby, wherein the output indicates appropriate timing for initiation of writing
10 of the information for the respective scan lines;

11 process the output of the start-of-scan detector assembly; and
12 adjust the control signal responsive to the processing of the output
13 to adjust an intensity of the light beam generated by the light source.

1 32. [Original] The article of manufacture of claim 31, wherein the
2 programming is further configured to cause the processing circuitry to adjust the
3 control signal to provide the light beam having a substantially constant intensity
4 during the scanning of the scan lines.

1 33. [Previously Presented] The apparatus of claim 1 wherein the light
2 source comprises a laser configured to generate the light beam.

1 34. [Currently Amended] The apparatus of claim 33 wherein the laser
2 is configured to generate all of the photons ~~of the light beam~~ which ~~[[is]]~~ are
3 sampled by the detector assembly.

1 35. [Previously Presented] The apparatus of claim 33 wherein the laser
2 is configured to generate the light beam void of any light received by the laser.

1 36. [Currently Amended] The apparatus of claim 33 further comprising
2 a control system configured to provide a control signal to control the drive level
3 of the laser during the generation of the light beam, and wherein the control
4 system is configured to vary the control signal responsive to the sampled single

5 light beam.

1 37. [Previously Presented] The apparatus of claim 1 wherein the light
2 source is configured to generate an entirety of the light beam for the first time,
3 and wherein the light beam is void of any other light generated by a source
4 different than the light source.

1 38. [Previously Presented] The apparatus of claim 9 further comprising
2 the light source comprising a laser configured to generate the light beam.

1 39. [Canceled]

1 40. [Currently Amended] The method of claim 22 wherein the
2 generating comprises generating using the light source comprising a laser, and
3 the controlling comprises controlling the laser ~~using the sampled light beam.~~

1 41. [Previously Presented] The method of claim 22 wherein the
2 generating comprises generating all light of the light beam using the light source.

1 42. [Currently Amended] The method of claim 22 wherein the
2 controlling comprises:
3 applying a control signal to control the light source; and
4 varying the control signal responsive to only the sampled sampling of only
5 the single light beam.

1 43. [Currently Amended] The method of claim [[43]] 42 wherein the
2 varying comprises varying to control the light source to generate the light beam
3 having a substantially constant intensity.

1 44. [Previously Presented] The device of claim 29 wherein the
2 sampling assembly is configured to initiate start-of-scan operations to write the
3 scan lines onto the photoconductor.

1 45. [New] The apparatus of claim 9 further comprising the light
2 source, and wherein the light source is configured to only generate the light
3 beam comprising only a single light beam, the photodetector is configured to
4 sample the single light beam and to provide the indication of only the sampled
5 single light beam, and the control system is configured to control the drive level
6 of the light source only using the indication of only the sampled single light
7 beam.

1 46. [New] The apparatus of claim 14 wherein the photodetector is
2 configured to provide the indication of only the sampled single light beam, and
3 the control system is configured to maintain the drive level of the laser at the
4 constant drive level only using the indication of only the sampled single light
5 beam.

1 47. [New] The method of claim 18 wherein the means for sampling
2 comprises means for providing the indication of only the sampled single light
3 beam and the means for maintaining comprises means for maintaining the means
4 for generating at the constant drive level only using the indication of only the
5 sampled single light beam.